





## THE RIO TINTO-ZINC CORPORATION

SECOND ANNUAL REPORT AND ACCOUNTS

1963

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## THE RIO TINTO-ZINC CORPORATION LIMITED

## ANNUAL REPORT AND ACCOUNTS 1963

Directors Val Duncan, O.B.E. Chairman and Managing Director

The Rt. Hon. Lord Baillieu, K.B.E., C.M.G. Deputy Chairmen

Gerald Coke

R. C. Atherton Roy W. Wright foint Deputy Managing Directors

A. M. Baer

Sir George Bolton, K.C.M.G.

Frank Byers, O.B.E.

V. Cavendish-Bentinck, C.M.G.

D. R. Colville

P. V. Emrys-Evans

M. I. Freeman

Sir Basil Goulding, Bart.

Sir Percivale Liesching, G.C.M.G., K.C.B., K.C.V.O.

Sir Maurice Mawby, C.B.E.

Rene J. S. Mayer

Lt.-Gen. Sir Archibald Nye, G.C.S.I., G.C.M.G.

Baron Guy de Rothschild

Sir Mark Turner

Hon. Robert H. Winters

Joint Secretaries T. W. Pool

P. H. Truscott

Head Office 6 St. James's Square, London, S.W.1

Transfer Offices 9 Basinghall Street, London, E.C.2

95 Collins Street, Melbourne, C.1

## RTZ ANNUAL REPORT AND ACCOUNTS 1963

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## Notice of Meeting

NOTICE is hereby given that the second annual general meeting of The Rio Tinto-Zinc Corporation Limited will be held at the Piccadilly Hotel, 21 Piccadilly, London, W.1, on Thursday, 11th June 1964 at 12 o'clock noon for the following purposes:

To consider the Company's accounts and the reports of the Directors and Auditors for the year ended 31st December 1963.

To declare a dividend on the ordinary shares.

To elect directors.

A member entitled to attend and vote at the meeting is entitled to appoint a proxy, who need not also be a member, to attend and, on a poll, vote instead of him.

6 St. James's Square, London, S.W.1 14th May 1964

By order of the Board
T. W. POOL
P. H. TRUSCOTT
Joint Secretaries

Note:

Only holders of the 5 per cent 'B' cumulative preference shares or of the ordinary shares are entitled to attend and vote at the meeting.

A holder of a share warrant to bearer, who desires either to attend the meeting or to appoint a proxy to attend and, on a poll, vote instead of him, can receive a ticket of admission on depositing at the Company's transfer office at least twenty-four hours prior to the meeting a certificate signed by the authorised depositary with whom the share warrant is kept stating that the share warrant is in the custody of the authorised depositary and will be retained in such custody until after the close of the meeting.

## Report of the Directors

The Directors submit their second annual report and the audited accounts for the year ended 31st December 1963.

#### SHARE CAPITAL

During the year 8,646 ordinary shares of 10s. each were issued in exchange for £7,775 fully paid 6 per cent Employees Convertible Unsecured Loan Stock.

#### LOAN CAPITAL

In 1963 a further instalment of 25 per cent was received on the £10,000,000 of  $5\frac{1}{2}$  per cent unsecured loan stock 1966/71. There is a final instalment of £2,500,000 receivable on 1st July 1964. The subscribers to the stock have been granted options to subscribe, on or for a limited period after 30th June 1966, for up to a total of 6,628,568 ordinary shares of 10s. each of the Company at 30s. 2d. per share.

No further 6 per cent employees' convertible unsecured loan stock 1963/80 was issued during 1963. At 31st December 1963, £19,862 had been paid up of the £23,130 in issue and of this amount £7,975 fully paid stock had been exchanged for ordinary shares.

#### ACCOUNTS AND DIVIDENDS

The consolidated profits include for the first time the profits arising from Atlas Steels Limited of Canada. These profits, together with greatly improved profits arising from lead and zinc, although offset by the expected considerable decrease in uranium income, are the main reasons for the increase of £1,484,000 in profit before taxation. The taxation charge has shown a substantial increase partly because of the increased profits and partly because of the lower proportion of tax-free uranium income as compared with taxable income from other sources. The net profit for the year attributable to the shareholders of R.T.Z. is £546,000 higher at £6,303,000.

The Directors recommend the payment of a final dividend for 1963 of 1s. 3d. (1962—1s. 0d.) per ordinary share, making with the interim dividend of 6d. (1962—6d.) per share, paid on 1st January 1964, a total distribution of 1s. 9d. (1962—1s. 6d.) per share.

Subject to the approval of shareholders at the forthcoming annual general meeting, notice of which is given on page 3, the final ordinary dividend will be paid on 1st July 1964 to shareholders on the London and Melbourne registers on 1st June 1964 and to holders of share warrants to bearer on or after 1st July 1964 after presentation of ordinary coupon No. 4.

The results for the year 1963, with comparative figures for 1962, were as set out below:

			196	2
Consolidated profit of the group before taxation  Deduct: Taxation	£	£ 13,703,000 3,217,000	£	£ 12,219,000 2,351,000
Deduct: Amortisation of goodwill	1,288,000	10,486,000	1,185,000	9,868,000
Profit attributable to minority interests	2,895,000	4,183,000	2,926,000	4,111,000
Net profit for year attributable to shareholders of R.T.Z. Add: Provisions no longer required		6,303,000		5,757,000
Taxation	217,000		311,000	
Other	31,000			
		248,000		311,000
		6,551,000		6,068,000
Appropriations				
Dividends:				
Preference	321,000		308,000	
Interim ordinary dividend of 6d. (1962—6d.)	922,000		921,000	
Recommended final ordinary dividend of 1s. 3d.				
per share (1962—1s. 0d.)	2,304,000		1,843,000	
		3,547,000		3,072,000
Profit retained in the business		£3,004,000		£2,996,000

## **CHAIRMAN**

Mr. A. M. Baer resigned as Chairman of the Company with effect from 31st March 1964, but remains a Director. Mr. Val Duncan was elected Chairman of the Company to succeed Mr. Baer and remains Managing Director.

#### DIRECTORS

Mr. Hugh Saunders resigned as a Director of the Company with effect from 31st October 1963.

The Hon. Robert H. Winters was appointed a Director of the Company on 21st November 1963. In accordance with the articles of association he retires and, being eligible, he offers himself for re-election.

In accordance with the articles of association, Mr. M. I. Freeman, Sir Basil Goulding, and Sir Percivale Liesching retire by rotation, and, being eligible, they offer themselves for re-election.

A resolution will be submitted at the meeting for the election of Mr. H. St. L. Grenfell, O.B.E., M.C., as a Director of the Company in place of Mr. P. V. Emrys-Evans, who also retires by rotation, but does not seek re-election.

#### **AUDITORS**

Messrs. Cooper Brothers & Co. and Messrs. Spicer and Pegler have indicated their willingness to continue in office as joint auditors of the Company.

By order of the Board T. W. POOL P. H. TRUSCOTT Joint Secretaries

Salient Features	1963	1962
	£	£
Operating Profit	8,472,000	7,176,000
Investment Income	5,289,000	5,214,000
Taxation for the year	3,217,000	2,351,000
Consolidated net profit	6,303,000	5,757,000
Ordinary dividends	3,226,000	2,764,000
per 10s. share	1s. 9d.	1s. 6d.
Profit retained in the business	£ 3,004,000	£ 2,996,000
Capital employed	136,381,000	116,596,000
Expenditure on fixed assets (net)	7,252,000	4,302,000
Depreciation	8,984,000	12,832,000
Amortisation of Goodwill	1,288,000	1,185,000

#### CONSOLIDATED ACCOUNTS FOR THE YEAR ENDED 31st DECEMBER 1963

The following are the principal subsidiary companies whose results are included in the consolidated profit and loss account and consolidated balance sheet which are shown on pages 8 and 10:

Australia CC	ONZINC RIOTI	NTO OF AUST	TRALIA LIM	AITED (C.R.A.)
--------------	--------------	-------------	------------	----------------

(90 per cent owned)

and the following subsidiaries of C.R.A.

The Zinc Corporation, Limited (wholly owned)

Sulphide Corporation Pty. Limited (75 per cent owned)

Mary Kathleen Uranium Limited (51 per cent owned)

Rio Tinto Collieries Pty. Limited (wholly owned)

Fitzpatrick Industries Pty. Limited (75 per cent owned)

United Kingdom IMPERIAL SMELTING CORPORATION LIMITED (wholly owned)

Canada RIO ALGOM MINES LIMITED (53 per cent owned)

PRESTON MINES LIMITED (81 per cent owned)

Southern Rhodesia RIO TINTO RHODESIAN HOLDING COMPANY LIMITED

(wholly owned)

Shareholders of R.T.Z. may obtain copies of the published Reports and Accounts for 1963 of Conzinc Riotinto of Australia Limited and of Rio Algom Mines Limited upon request from the Joint Secretaries of R.T.Z., 9 Basinghall Street, London, E.C.2.

# Consolidated Profit and Loss Accou

			1	962
Operating Profit (Note 2)	£	£ 8,472,000	£	£ 7,176,000
Income from Investments General Associated (Note 3)	4,026,000 1,263,000		4,027,000 1,187,000	
Interest (Gross)		5,289,000 875,000	Contact Contac	5,214,000 784,000
Deduct: Interest on Loan Capital		14,636,000 933,000		13,174,000 955,000
Profit before Taxation  Deduct: Taxation on Profit for the year (Note 4)	~ 1	13,703,000 3,217,000		12,219,000 2,351,000
Deduct: Amortisation of Goodwill (Note 6 and Page 14)		10,486,000		9,868,000 1,185,000
Deduct: Profit for the year attributable to Minority		9,198,000		8,683,000
Interests  CONSOLIDATED NET PROFIT FOR THE YEAR		2,895,000 £6,303,000		2,926,000 £5,757,000
CONSOLIDATED APPROPRIATION ACCOUNT	£	£	£	£
Net Profit available for appropriation Provisions no longer required		6,303,000		5,757,000
Taxation Other	217,000 31,000	242.000	311,000	244 000
Division to the second		248,000  6,551,000		311,000 
Dividends paid and proposed for 1963 less income tax at 7s. 9d. in the £  Preference	321,000		308,000	
Ordinary—Interim of 6d. per share  (1962—6d. per share)	922,000		921,000	
Final of 1s. 3d. per share  (1962—1s. 0d. per share)	2,304,000	3,547,000	1,843,000	3,072,000
PROFIT RETAINED IN THE BUSINESS (Page 14)		£3,004,000		£2,996,000

## LIMITED AND SUBSIDIARY COMPANIES

## or Year ended 31st December 1963

#### NOTES

#### 1. Basis of Consolidation

Because the Directors believe it would be misleading to include them the Consolidated Financial Statements exclude the following subsidiary companies:

- (a) Housing subsidiaries in Canada because the investment is of doubtful value and is being amortised over the period of the uranium contracts. Losses for the year amounted to £14,000 (1962—£70,000) compared with amortisation provided by the holding company of £70,000 (1962—£98,000). At 31st December 1963 losses exceed the amount provided by £154,000 (1962—£266,000).
- (b) Certain partially owned subsidiary companies in Canada and South Africa because of the large minority interests which exist. None of these companies has had profits or losses since acquisition.

#### 2. Operating Profit

0

opoluting 110111	1963	1962
Operating Profit is arrived at after charging	£	£
Depreciation (including Preproduction and Other Expenditure £1,837,000: 1962	9 004 000	42.002.000
£3,106,000)	8,984,000	12,832,000
Auditors' Remuneration	54,000	43,000
Emoluments of Directors of Parent Company		
Directors' Fees	57,062	35,720
Management Remuneration	108,977	95,373
Other Emoluments	35,306	35,177
	201.345	166.270

The reduction in the charge for depreciation from £12,832,000 to £8,984,000 mainly occurs in Rio Algom Mines Limited. As in past years this company has provided depreciation on the basis of writing off its uranium mining assets over the total poundage of uranium oxide to be delivered under its original contracts. The poundage delivered under the contracts was substantially lower in 1963 than in 1962 and the charge for depreciation fell accordingly. The assets will be written off over the life of these contracts.

Formerly no depreciation was provided on certain mining property standing in the books at £4,224,000. It has now been decided to identify capital reserves of £3,141,000 as being applicable to this property and, commencing in 1963, to amortise the balance of £1,083,000 over twenty years.

#### 3. Associated Companies

The Company's share of associated companies' profits and losses after tax, based on their audited accounts ending within 1963, is £1,145,000 compared with gross dividends of £1,263,000 less tax of £361,000 and minority interests of £45,000 included in the accounts.

#### 4. Taxation

	1303	1902
Taxation charge on profit for year	£	£
United Kingdom Income Tax	1,469,000	1,440,000
United Kingdom Profits Tax	330,000	367,000
Overseas Taxes	1,418,000	544,000
	£3,217,000	£2,351,000

1000

No provision has been made for United Kingdom Taxation (less double taxation relief) which would arise in the event of the overseas subsidiaries distributing reserves or unappropriated profits. A large part of these profits is exempt from taxation in the countries in which the profits arise and would therefore receive no benefit from double taxation relief if remitted.

#### 5. Exploration Expenditure

Exploration expenditure incurred during the year has been written off, where it has proved to be abortive, or has had a provision made equal to the expenditure on continuing projects.

#### 6. Amortisation of Goodwill

Goodwill in this context refers to the excess of cost of shares in subsidiary companies over book value of net assets acquired where either there is some doubt as to the continuing value which can be applied to the assets or where it represents the amount by which the book value of the assets is understated.

### 7. Preference Dividends

The net dividends for the year were as follows:	£
43/4% 'A' Cumulative preference shares of £1 each	225,000
5% 'B' Cumulative preference shares of £1 each	96,000
	£321,000

In 1962 the dividends for the first six months were paid in respect of the preference shares of The Consolidated Zinc Corporation Limited and The Rio Tinto Company Limited.

# Consolidated Balance She

				1962
SOURCES OF CAPITAL	£	£	£	£
Share Capital—Parent Company		40,970,000		40,966,000
Capital Reserves (Page 14)		11,909,000		13,494,000
Exploration and Development Reserve (Note 2 and Page 14)		2,400,000		3,010,000
Revenue Reserves and Surplus (Page 14)		20,439,000		18,154,000
TOTAL CAPITAL AND RESERVES		75,718,000		75,624,000
Minority Interests		18,285,000		20,251,000
6% Employees Convertible Unsecured Loan Stock 1963/80		12,000		14,000
Long-Term Indebtedness				
Secured	18,886,000		2,074,000	
Unsecured	11,082,000	20 069 000	8,369,000	10,443,000
Advances on Future Uranium Deliveries		29,968,000		10,443,000
(Secured)		11,864,000		9,711,000
Future Taxation		534,000		414,000
Deferred Revenue (Note 3)		_		139,000
		£136,381,000		£116,596,000
REPRESENTED BY	£	£	£	£
Fixed Assets at cost or valuation, less depreciation (Page 15)		50,723,000		42,541,000
Exploration and Development Expenditure at cost, less provisions and amounts written off		3,278,000		3,251,000
Pre-production and Other Expenditure at cost, less amortisation (Note 4)		5,575,000		5,936,000
Subsidiary Companies not consolidated at cost, less amortisation		3,731,000		1,540,000
Investments at cost, less amounts written off	4 4 4 0 0 0 0 0		16.953.000	
General (Note 5)	14,100,000		16,853,000 13,780,000	
Associated Companies (Notes 5 and 6)	18,160,000	32,260,000	13,780,000	30,633,000
Current Assets				
Stocks and Stores (Note 7)	23,013,000		15,350,000	
Debtors and Prepayments	14,160,000		8,514,000	
Government Securities (Market Value £2,701,000:	0.075.000		4 440 000	
1962 £1,429,000 )	2,675,000		1,419,000	
Short-Term Investments, Cash and Bank Deposits	21,629,000	61,477,000	22,541,000	47,824,000
0		157,044,000		131,725,000
Current Liabilities	44 000 000		6.042.000	
Creditors	11,688,000		6,042,000	
Bank Overdrafts (Secured)	961,000		2,281,000	
Taxation and Mining Royalty (Note 8)	2,223,000		1,402,000 2,479,000	
Provisions (Note 9)	2,405,000		2,479,000	
Dividends (net)	3,386,000	20,663,000	2,929,000	15,129,000
		£136,381,000		£116,596,000

## t 31st December 1963

#### NOTES

#### 1. Basis of Consolidation

Because the Directors believe it would be misleading to include them the Consolidated Financial Statements exclude the following subsidiary companies:

- (a) Housing subsidiaries in Canada because the investment is of doubtful value and is being amortised over the period of the uranium contracts. Losses for the year amounted to £14,000 (1962—£70,000) compared with the amortisation provided by the holding company of £70,000 (1962—£98,000). At 31st December 1963 losses exceed the amount provided by £154,000 (1962—£266,000).
- (b) Certain partially owned subsidiary companies in Canada and South Africa because of the large minority interests which exist. None of these companies has had profits or losses since acquisition.

#### 2. Exploration and Development Reserve

This Reserve is considered to be adequate to cover any loss which might arise in the event of a decision being taken not to proceed with any of the projects.

#### 3. Deferred Revenue

In 1962 and previous years Rio Algom Mines Limited took the selling price of uranium concentrates at the average price of its original uranium contracts. In 1963 the policy was changed and selling prices were taken at the contract prices of current deliveries. Had the previous policy been maintained, net profits of the group in 1963 would have been increased by £317,000.

#### 4. Pre-production and Other Expenditure

Pre-production and development expenditure and the cost of the right to deliver under a sales contract are being amortised on a poundage basis over the original Canadian uranium contracts and at the year end had been written down to £4,392,000. Rio Algom's financing expenses of £1,018,000 are being amortised over the life of its  $5\frac{3}{4}\%$  sinking fund debentures. The balance of £165,000 is at cost.

#### 5. Investments

	1963	1962
General	£	£
Unquoted	510,000	390,000
Quoted (Market Value £30,282,000 : 1962 £26,341,000 )	13,590,000	16,463,000
	£14,100,000	£16,853,000

The group's one-third holding in Compañia Española de Minas de Rio Tinto, S.A., is included above in Quoted Investments.

£	£
6,951,000	6,417,000
1,585,000	1,585,000
8,536,000	8,002,000
9,624,000	5,778,000
£18,160,000	£13,780,000
	1,585,000 8,536,000 9,624,000

#### 6. Associated Companies

The Company's share of net assets of associated companies based on their audited accounts ending within 1963 is £15,756,000 compared with the book value of £8,536,000.

#### 7. Stocks and Stores

With the exception of Mary Kathleen Uranium Limited these have been consistently valued on bases appropriate to each business. With regard to Mary Kathleen stocks have hitherto been valued at the estimated realisable value, but in 1963, owing to a contractual limitation on deliveries, stocks were brought in at cost. On the previous basis the value of stocks would have been £1,354,000 higher, resulting in an increased net profit to the group of £343,000.

#### 8. Taxation

No provision has been made for United Kingdom Taxation (less double taxation relief) which would arise in the event of the overseas subsidiaries distributing reserves or unappropriated profits. A large part of these profits is exempt from taxation in the countries in which the profits arise and would therefore receive no benefit from double taxation relief if remitted.

#### 9. Provisions

The amounts of provisions for accident compensation, pensions, welfare, deferred repairs, group maintenance and renewal of plant, set aside at 31st December 1963, have been arrived at as follows:

	1963 £	1962 £
Provisions included in accounts of subsidiary companies at 1st January	2,479,000	2,389,000
Charged to trading accounts during year	808,000	868,000
	3,287,000	3,257,000
Less: Utilised for purposes for which they were provided	882,000	778,000
At 31st December	£2,405,000	£2,479,000

#### 10. Commitments and Contingencies

- (a) Estimated commitments for capital expenditure £8,490,000. (1962—£2,070,000)
- (b) Uncalled liabilities on Investments £722,000.(1962—£202,000)
- (c) Guarantees of £477,000. (1962—£219,000)
- (d) Guarantee of up to £886,000 in respect of a loan to a non consolidated subsidiary company and in addition to the uncalled liability on shares of £6,946,000, there is a guarantee, together with the other sponsoring shareholders, to bring this mining company into production.

#### 11. Currency Conversion

The investment in Compañia Española de Minas de Rio Tinto, S.A., included in General Investments in the Balance Sheet is at its original sterling cost because it was acquired as a result of sterling expenditure. Other foreign currency assets and liabilities have been converted into sterling at the quoted rates of exchange at 31st December 1963.

# Balance Sheet

		£		1962 £
SOURCES OF CAPITAL		L		L
Share Capital (Note 1)		40,970,000		40,966,000
Capital Reserves (Note 1)		4,000		
Revenue Reserves and Surplus (Note 2)		429,000		418,000
TOTAL CAPITAL AND RESERVES 6% Employees Convertible Unsecured Loan		41,403,000		41,384,000
Stock 1963/80 (Note 3) Long-Term Indebtedness		12,000		14,000
5½% Unsecured Loan Stock 1966/71 (Note 4)		7,500,000		5,000,000
		£48,915,000		£46,398,000
REPRESENTED BY	£	£	£	£
Subsidiary Companies				
Investments at cost		48,650,000		48.435,000
Amounts owing by subsidiary companies  Deduct: Amounts owing to subsidiary	10,139,000		1,523,000	
companies	6,855,000	3,284,000	1,873,000	350,000
		51,934,000		48,085,000
Current Assets  Debtors	302,000		131,000	
Short-Term Investments, Cash and Bank Deposits	90,000		1,116,000	
Doposite		392,000		1,247,000
		52,326,000		49,332,000
Current Liabilities  Creditors	25.000		9,000	
Dividends (net)	25,000 3,386,000	3,411,000	2,925,000	2,934,000
		£48,915,000		£46,398,000

VAL DUNCAN
R. C. ATHERTON
ROY W. WRIGHT

### ORPORATION LIMITED

## 1st December 1963

#### NOTES

#### 1. Share Capital

		Issued and
	Authorised	fully paid
	£	£
4¾% 'A' Cumulative Preference Shares of £1 each	7,732,967	7,732,967
5%'B' Cumulative Preference Shares of £1 each	3,143,750	3,143,750
Ordinary Shares of 10s. each	39,123,283	30,093,760.10s.
	£50,000,000	£40,970,477. 10s.

During 1963 8,646 Ordinary Shares were issued in exchange for £7,775 of fully paid 6% Employees Convertible Unsecured Loan Stock resulting in a share premium of £4,000.

#### 2. Revenue Reserves and Surplus

2. Revenue Reserves and Surplus		
	£	£
At 1st January		418,000
Profit for the year		3,558,000
		3,976,000
Appropriations		
Dividends paid and proposed for 1963 less tax at 7s. 9d. in the £	3	
Preference (Note 7, page 9)	321,000	
Ordinary—Interim of 6d. per share	922,000	
Final of 1s. 3d. per share	2,304,000	
		3,547,000
At 31st December		£429,000

## 3. 6% Employees Convertible Unsecured Loan Stock 1963/80

At 31st December 1963, £23,130 loan stock had been issued to employees and was paid up to the extent of £19,862. Provided the loan stock is fully paid up £8,270 is convertible at the employees' option any time after 30th June 1962 into ordinary shares of 10s. 0d. each in the Company at 17s. 1d. with an entitlement of 117 shares per £100 of stock and £14,860 is convertible any time after 30th June 1963 into ordinary shares of 10s. 0d. each in the company at 19s. 6d. with an entitlement of 102 shares per £100 of stock. Since 30th June 1962 £4,950 of fully-paid loan stock of the first tranche has been converted into 5,785 ordinary shares and since 30th June 1963 £3,025 of fully-paid loan stock of the second tranche has been converted into 3,095 ordinary shares. Outstanding loan stock will be repaid by the Company at par at 31st December 1980.

#### 4. 5½% Unsecured Loan Stock 1966/71

The Company has issued £10 million of  $5\frac{1}{2}\%$  unsecured loan stock of which 75% has been paid and the balance will be payable on 1st July 1964. The stock is redeemable at par on 1st July 1971 or earlier, as provided in the Trust Deed. The subscribers to the stock have been granted options to subscribe on, or for a limited period after 30th June 1966, for ordinary shares of 10s. 0d. each in the Company at the price of 30s. 2d. per share up to a total of 6,628,568 shares.

#### 5. Commitments and Contingencies

- (a) Guarantee of £60,000 (1962—£NIL).
- (b) Guarantees of
  - (i) £313,000 in respect of a promissory note issued by a consolidated subsidiary company.
  - (ii) up to £886,000 in respect of a loan to a non-consolidated subsidiary company

and, in addition to the uncalled liability of subsidiary companies on shares of £6,946,000, there is a guarantee, together with the other sponsoring shareholders, to bring this mining company into production.

## RESERVES

		1963
CAPITAL RESERVES	£	£
General At 1st January Less: Exchange differences Preliminary expenses Minority adjustments	7,000 26,000 8,000	15,654,000 41,000
Add: Profits less losses on realising Fixed and other Assets Transfer from Reserve against Exploration and Development Transfer from Revenue Reserves Premiums on issues of shares	255,000 313,000 124,000 242,000	15,613,000 934,000
		16,547,000
Deduct: Goodwill		
At 1st January		2,160,000
Add: Group proportion of excess of cost over the book value of the net assets of Atlas Steels Limited  Minority adjustments	3,704,000 64,000	
		3,768,000
		5,928,000
Less: Exchange differences Amortisation for year (1962—£1,185,000)	2,000 1,288,000	1,290,000
		4,638,000
At 31st December		£11,909,000
Included in Capital Reserves is an amount of £4,000 for R.T.Z. share premiums.		
RESERVE AGAINST EXPLORATION AND DEVELOPMENT	£	£
At 1st January	4 00F 000	3,010,000
Less: Exploration written off Capital reserves no longer required	1,005,000 313,000	
		1,318,000
Add: Transfer from Revenue Reserves		1,692,000
At 31st December		708,000 £2,400,000
At 313t December		=======================================
REVENUE RESERVES AND SURPLUS	£	£
General At 1st January		17,894,000
Less: Reserve against Exploration and Development	708,000	17,034,000
Transfer to Capital Reserves on redemption of preference capital of a subsidiary	124,000	
Miscellaneous	2,000	834,000
Add: Profit retained in 1963		17,060,000 3,004,000
		20,064,000
Concentrate Stocks		
At 1st January  Add: Increase in the valuation of concentrate stocks		260,000 115,000
		375,000
At 31st December		375,000 £20,439,000

14

## IMITED AND SUBSIDIARY COMPANIES

### FIXED ASSETS

	1963	1962
	£	£
Cost or valuation		
At 1st January	117,424,000	115,096,000
Assets acquired from Atlas Steels Limited	7,528,000	
Net additions during year	7,252,000	4,302,000
Adjustments during year on currency conversion	50,000	1,974,000
	132,154,000	117,424,000
Depreciation		
At 1st January	74,883,000	<b>67,576,</b> 000
Relating to assets acquired from Atlas Steels Limited	382,000	<b>WEST-OLD</b>
Depreciation for year	7,147,000	9,726,000
Adjustments during year on currency conversion and disposal of assets	981,000	2,419,000
	81,431,000	74,883,000
Net Balance Sheet Value		
Mining properties and leases	6,846,000	6,900,000
Land, Buildings, Plant and Equipment	43,877,000	35,641,000
	£50,723,000	£42,541,000

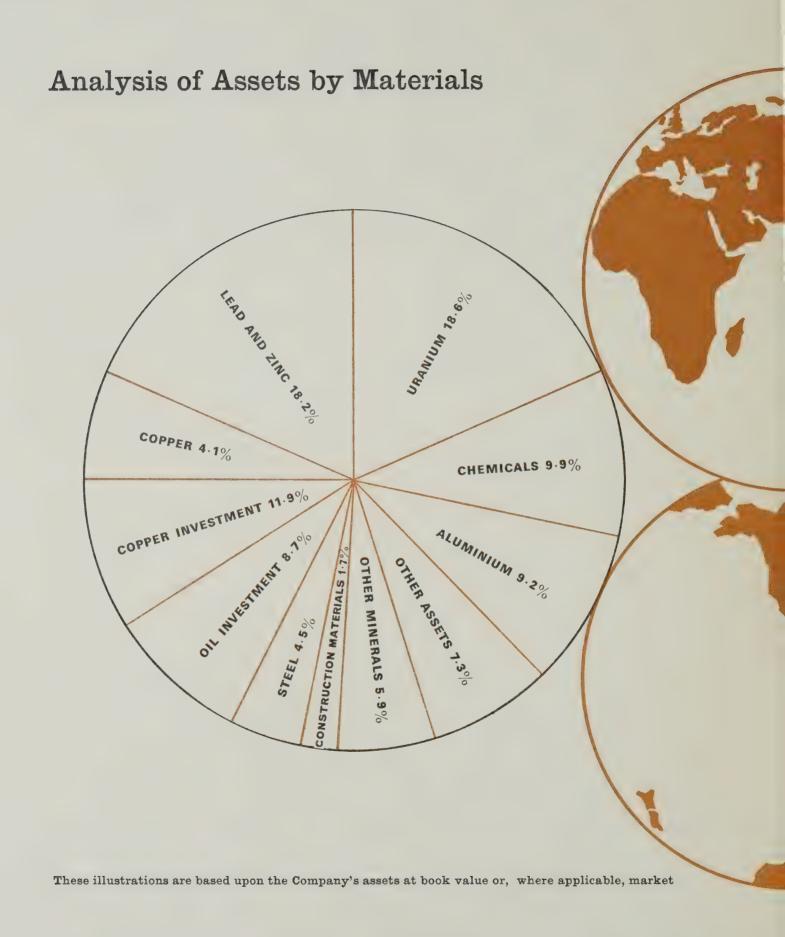
## REPORT OF THE AUDITORS

to the MEMBERS of THE RIO TINTO - ZINC CORPORATION LIMITED

We have examined the balance sheet of the company set out on pages 12 and 13 and have obtained the information and explanations we required. Proper books of account have been kept and the balance sheet is in agreement with them.

We have also examined the consolidated balance sheet and profit and loss account set out on pages 8 to 11 which incorporate the accounts of certain subsidiary companies audited by other firms. In our opinion, based upon our examination and the reports of other auditors, the balance sheet and the consolidated accounts comply with the Companies Act 1948, and give a true and fair view of the state of affairs and the profit of the company and of the group.

COOPER BROTHERS & CO.
SPICER and PEGLER
Chartered Accountants





## The Chairman's Statement

It is my privilege to make the Chairman's statement for the first time and also to record the gratitude of the Board and of our whole organisation throughout the world to my predecessor, Mr. A. M. Baer, who retired from this office in March 1964.

In 1961, on the point of retirement, Mr. Baer agreed to take on the chairmanship of Consolidated Zinc on the untimely death of Mr. L. B. Robinson and became the first Chairman of the new R.T.Z. organisation.

Mr. Baer has made an outstanding contribution to the metal and mining industry of the United Kingdom and indeed of the Commonwealth. He will continue as Chairman of New Broken Hill Consolidated and has agreed to remain on the Board of R.T.Z. in a less exacting role, so that his great experience and wise counsel will continue to be available to the group organisation for many years to come.

During the year under review, the death occurred of Mr. W. S. Robinson, one of the principal founders of Consolidated Zinc. His services, over a long life, to the mining industry and to the British Commonwealth —particularly in Australia—were well summed up in *The Times* obituary notice which said of him 'W. S. Robinson was perhaps the most constantly influential Australian, within his country and abroad, over the past forty years'.

In November 1963, the Hon. Robert Winters, who heads the R.T.Z. organisation in Canada, was appointed to the Board. We were very pleased to welcome, as a fellow director, an outstanding Canadian personality who is already a close colleague of the London organisation and represents our interests in North America.

Also in 1963, Mr. Hugh Saunders left the Board to take up the important appointment of Director of Administration and Services at the Bank of London and South America. We are very grateful for the major contribution Mr. Saunders made to the organisational and administrative policy of the Rio Tinto Company and latterly to the problems of the merged Rio Tinto-Zinc Corporation.

As you will have read in the Report of the Directors, Mr. P. V. Emrys-Evans, who joined the Board of Consolidated Zinc in January 1961, has decided, on reaching the age of seventy, not to seek re-election as a Director. We wish to take this opportunity of expressing our appreciation of the services Mr. Emrys-Evans has rendered to Consolidated Zinc and to your Company. We are pleased that Mr. H. St. L. Grenfell has agreed to offer himself for election in place of Mr. Emrys-Evans.

It gives us all very great satisfaction to learn that our colleague, Sir Maurice Mawby, has recently been awarded the highest honour that can be bestowed by The Institution of Mining and Metallurgy, namely the Gold Medal; and we offer him our congratulations on this well merited recognition of the outstanding services he has rendered to the mining industry, particularly in Australia.

## Year's results:

The consolidated profit before taxation amounted to £13,703,000 for the year and showed a satisfactory increase of £1,484,000 over 1962. This results mainly from an increase in operating profits, due to substantially higher profits from lead and zinc and to the inclusion for the first time of the profits of Atlas Steel, offset by substantially lower uranium profits in Canada and in Australia.

The charge for taxation is considerably higher than for 1962, as a result of the increase in trading profits and the effect of the changed pattern of profits on the proportion liable to taxation. After deducting minority interests and amortisation of goodwill, the consolidated net profit after tax for the year amounts to £6,303,000.

The increase of £546,000 in the consolidated net profit as compared with 1962 may be regarded with satisfaction. The net profit for the year available for appropriation, including provisions no longer required, amounts to £6,551,000, of which £3,547,000 will be absorbed by the dividends paid or recommended to shareholders, leaving a balance of £3,004,000 added to reserves.

## **COMPANY POLICY AND OBJECTIVES:**

Now that we have completed nearly two years of the merged company R.T.Z. it is appropriate to review our objectives based on the strength of our assets and experience. With a strong background of mining R.T.Z. has become a group of international companies operating on five continents, devoted primarily to the development of natural resources with extensions into industry where appropriate. Our operations are broadly based, both as to commodities and as to countries, though notably in the Commonwealth. With an ever growing population in the world and a steadily increasing need to augment the production of metals and minerals, there is no shortage of reasonable projects to be carried out which we believe will not only be satisfactory to shareholders but will also make a contribution to the development of the natural resources of the free world. The problem is to be selective so as to be sure to preserve a financial, technical and commercial equilibrium of R.T.Z. as a world-wide organisation.

We must also bear in mind the inevitable time lag which occurs between initial expenditure on exploration and the time when shareholders can expect a dividend from a mine in production. This period can well be ten years.

New major projects with a long life ahead of them require large capital outlay and they cannot be undertaken without a heavy element of debt finance, imposing an even greater obligation on the group to ensure that each of them is launched on the most favourable basis. We encourage imaginative thinking but we must act on the basis of sound judgment and we cannot afford to take short cuts in bringing the major projects into operation. The larger the project, the greater the importance of this principle.

The policy of the group is to seek suitable partners in these major ventures so that we can carry out a larger number of projects and thus reduce the risk of the heavy load of finance involved. We aim to achieve a large enough stake to justify the use of our commercial and technical expertise and, where appropriate, to assume managerial responsibility. At present there are four projects in the world with which we are associated, each of which requires the expenditure of over £30 million.

I refer first to PALABORA, the copper property which is now financed and under construction in South Africa. This property is under our group management and we have a 39 per cent beneficial interest in it. Our principal partners in this venture are Newmont Mining Corporation and the remainder of the shares are held by American Metal Climax, the South African Industrial Development Corporation, Rhodesian Selection Trust, Union Corporation and the public. The cost of the proposition will exceed £35 million, yet over 60 per cent of this has been raised on a debt finance basis through the South African I.D.C. and the Kreditanstalt für Wiederaufbau of Frankfurt, so that the actual equity participation by R.T.Z. will be around £ $5\frac{1}{2}$  million.

Secondly, I refer to QUEENSLAND ALUMINA which C.R.A., our Australian Company, in partnership with Kaiser Aluminum and Chemical Corporation, has initiated and brought in as other partners Aluminium Limited and Pechiney. This again will cost over £30 million, of which some 75 per cent will constitute outside loan funds, and C.R.A. and Kaiser will each participate to the extent of 8 per cent of the equity in respect of Comalco their jointly owned aluminium company. By building a plant on this scale we shall ensure low cost alumina which will be of great advantage to the Comalco aluminium complex, both within

and outside Australia. It will result in a profitable outlet for the Weipa bauxite deposits on a large scale in order to supply the alumina plant and our overseas customers in Japan and Europe.

Thirdly, again in Australia, C.R.A. has a 60 per cent and Kaiser Steel Corporation a 40 per cent interest in HAMERSLEY IRON, which has recently been granted rights by the Western Australian Government over an area containing reserves estimated at 5,000 million tons of iron ore. We have also received rights from the Western Australian Government to a suitable port site, capable of ultimately taking 100,000 ton carriers, at King Bay approximately 180 miles from our deposits. Thus we have the foundations of an immense project. This development is dependent upon contracts which we hope to enter into during this year with the Japanese Steel Mills. Once again the funds envisaged for this property will be over £30 million, and it is anticipated that a high proportion of these capital costs will constitute debt finance.

Finally, the largest project of them all is the HAMILTON FALLS POWER COMPANY (H.F.P. Co.), in which the majority shareholders are The British Newfoundland Corporation (BRINCO). By an agreement entered into during 1963 your Canadian organisation, RIO ALGOM, has agreed to provide to Brinco and H.F.P. Co. managerial, supervisory and technical assistance on the Hamilton Falls project, and in line with this Mr. Winters, Chairman of Rio Algom, has assumed the chairmanship of Brinco. This project envisages the delivery of some 6 million H.P. of electric power to be supplied to Hydro Quebec, part of which would thence be transmitted to Consolidated Edison to provide power for New York.

Quite apart from the transmission lines through Quebec and the United States, the expenditure on this project is estimated to be between \$600 and \$700 million. A very high proportion of the capital will be found by way of long term debt and your group, with its present shareholdings and rights to options on further shares, has the opportunity to hold a 15 per cent beneficial interest in this large undertaking.

Experience has shown us that management problems do not necessarily increase in relation to the size of the project, and we therefore believe that it is right for us to tackle these large projects, frequently in association with partners, provided that we can organise the capital in such a manner that our share of the finance does not represent an unreasonable burden on our shareholders.

The implementation of the new projects I have referred to above calls for large sums of money. It will be seen nevertheless that with a policy of highly geared financing your Company's equity investment can be kept to reasonable proportions. I expect that our contribution will, as in the past, be found largely out of retained profits, thus avoiding any unnecessary dilution of the Company's equity capital. We believe it to be in the shareholders' interest, whilst maintaining a reasonable dividend policy, to reinvest a proportion of our net income so that we may ensure the future expansion of shareholders' interests in the free world.

#### R.T.Z. ORGANISATION:

During the year significant economies in administration have been achieved and further improvements will be obtained during 1964. Inevitably the merger of two companies, such as Rio Tinto and Consolidated Zinc, produces some duplication of functions. With the aid of McKinsey & Co. steps have been taken to streamline the organisation to achieve more efficiently the objectives of the group. One never reaches perfection in this respect, but we have made real progress in 1963 and we shall continue to do so in the light of commercial, technical and other factors.

#### **FUTURE PROFITABILITY:**

Notwithstanding the broad spread of your group's interests, a substantial proportion of the Company's income is derived from the mining and smelting of metals and fluctuates with metal prices. It is therefore

not possible to state with precision the level of profits in the future. Nevertheless the present statistical position of lead, zinc and copper remains strong and if this situation is maintained 1964 is expected to produce higher profits than 1963.

#### PRESENT OPERATIONS:

This part of my statement should be read in conjunction with the Report of the Directors and the Review of Operations as I shall refer only to those commodities, industries and investments that have a major bearing on the group's profits.

Your group's main assets are in lead and zinc, together with the associated smelting and chemical industry, copper, uranium, stainless and speciality steels and aluminium.

#### **URANIUM:**

In Australia, the Mary Kathleen Mine was closed down in October 1963 following the completion of the production of 9 million pounds of uranium oxide for the U.K.A.E.A.'s power programme in this country. This operation provided the major share of C.R.A.'s profits in 1962 and a lesser share in 1963. The Mine is being maintained on a care and maintenance basis so that it can again be brought into production when further contracts are forthcoming—perhaps towards the end of this decade.

In Canada the mining of uranium has also been reduced. There, however, one mine will remain in operation until 1971 as it has been agreed to stretch out deliveries under Government contracts originally due to be completed in 1966.

The development of nuclear power has reached a point where it is competitive in relation to other sources of energy in many areas of the world, including the United Kingdom. We consider that the longer term prospects for nuclear power are good, though the uranium stockpile, both in the United Kingdom and in the United States will take some time to reduce to the level which will necessitate a marked expansion of the industry. During the 1970's we believe there will be a great expansion in nuclear power in Europe and North America as well as in certain other industrial countries, including Japan.

Uranium is a widely distributed element, but the free world reserves of economic uranium so far proved are inadequate for the projected programmes beyond the 1970's. No doubt other economic deposits will be discovered, but the reserves which we have in Canada and Australia will play an important part in the future programme and we consider that we shall have to expand our production again towards the end of this decade.

#### COPPER:

Income from investments in the Northern Rhodesian Copperbelt has again contributed substantially to our profits. We believe that all concerned appreciate the necessity to maintain the stable prosperity of the Copperbelt which is of paramount importance to the economy of Northern Rhodesia.

The Palabora mine in the Republic of South Africa to which I have already referred is due to start production during the first half of 1966.

#### **ALUMINIUM:**

Comalco, of which C.R.A. is a 50 per cent shareholder together with Kaiser Aluminum, is still in a development stage. This industry is based on the magnificent bauxite resources in Queensland and the Bell Bay smelter in Tasmania, together with fabricating facilities in Sydney. The results at Bell Bay were disappointing this year, caused by unprecedented weather in Tasmania where there have been power

shut-downs caused largely by lack of hydro-electric power. It may take several years before Comalco will be contributing significantly to group profits, but the future of the industry is good.

In the United Kingdom R.T.Z. Metals, a wholly owned subsidiary, is installing a modern aluminium extrusion press which is planned to begin production during this autumn.

## STAINLESS AND SPECIALITY STEEL:

Atlas Steel, while enjoying record production and sales, both in North America and internationally, is experiencing the trading difficulties common to the industry because of severe competition. However, the new continuous sheet and strip mill in course of erection in Quebec is due to be completed and will be in full production in 1965. We look for this plant to have a beneficial effect on production costs. We do not expect the benefits of this investment to make themselves felt before the second half of 1965.

## LEAD/ZINC:

The marked rise in the prices of lead and zinc, combined with a substantial increase in output, resulted in greatly increased profits by the mines and smelters. The higher price levels were enjoyed during the latter part of the year and producers' stocks have been reduced to a low level and consumption is at a high rate.

### **COMMODITY PRICES:**

Much is being said and something done nowadays about the attempt to stabilise commodity prices. Those of us responsible for producing base and other metals are concerned to see that prices do not go too high, just as we are concerned when they go too low. To achieve a lasting stability at the right level is, however, easier said than done. So far as copper is concerned, a brave attempt has been made with considerable success, but it is much more difficult for the producers in the case of lead and zinc owing to the very large number of mines.

It must be in the interest of the free world that those newly developing countries which are highly mineralised should be able to receive reasonable prices for their products, for this is the only way that private capital can be attracted for the development of further natural resources which will no doubt be required due to the increase in world population. Moreover, the best form of aid is trade and even the richer nations would benefit by paying a reasonable price for the imports of metals, because this helps countries with mineral resources to earn their own living rather than receiving direct financial aid from the richer nations, which so often does not reach the population as a whole that it is designed to benefit. For the most part mineral resources are located away from the main centres of population and depressed price levels for metals have a social effect which is far worse than a slump in certain fields of manufacturing products, which can often be absorbed from a social point of view by buoyancy in other sectors of the economy. At present, with generally buoyant commodity prices, the danger is that if prices are too high the consuming industries are driven into substitutes and once a market is lost in a major field of consumption it is often never regained.

Although we as a group have reservations as to the advisability of stockpiling of commodities by Governments, the fact that there are large stockpiles in existence, notably in the United States, may give an opportunity of preventing metal prices rising too high. We consider that the L.M.E. prices for lead and especially zinc are already higher than is healthy for these industries, and it is to be hoped that the United States Government will consider taking early action by a planned release of sufficient metal to prevent further increases that would inevitably redound to the detriment of all concerned in these industries.

#### IMPERIAL SMELTING PROCESS:

Since the last Annual General Meeting options have been exercised by Sumitomo of Japan and the East Coast Smelting and Chemical Company of Canada. The latter licence, however, is conditional on a full-scale trial in 1964. Further option agreements have been signed since the end of 1963 by Azie da Minerali Metallici Italiani of Italy and by Mitsui of Japan. The number of licences now sold amounts to 9 and royalties arising from the operation of these smelters will provide a valuable source of income for many years to come.

### SPAIN:

The Spanish Rio Tinto Company is entering a new phase of its activities with an industrialisation programme in the province of Huelva. It is considered that the valorisation of these important pyrites deposits can best be achieved by processing a proportion of the pyrites production for sulphuric acid manufacture within Spain.

#### **INVESTMENTS:**

In addition to our Northern Rhodesian copper investments, to which I have referred, we have of course important investments in British Titan Products and British Petroleum, both of which contribute substantially to your Company's profits.

### **BOARD AND STAFF:**

Finally, on behalf of myself and my colleagues on the Board, I wish to express our gratitude for the devoted service of the management, staff and employees throughout the world. It is only by their devotion to the objectives and ideals of our group that the organisation progresses and I believe that you will wish to associate yourselves with this appreciation of all the members of our team.

28th April 1964 VAL DUNCAN

Note: All tonnages are given in long tons unless otherwise stated
Percentages of ownership are those of R.T.Z. unless otherwise stated and
represent percentages of equity capital

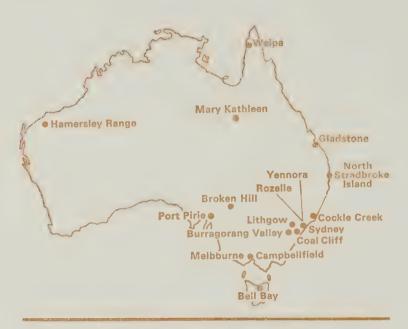
### **AUSTRALIA**

Principal holding and management company

## CONZINC RIOTINTO OF AUSTRALIA LIMITED (C.R.A.)

Head Office: Melbourne, Victoria

(90 per cent owned)



### LEAD AND ZINC MINING

Broken Hill, New South Wales

Production		1963	1962
The Zinc Corporation,	Limited	(wholly own	ed by C.R.A.)
Ore milled	tons	892,876	805,110
Lead concentrate	tons	155,930	139,031
Metal content: Lead	tons	118,348	105,427
Silver	ounces	2,601,069	2,393,404
Zinc concentrate	tons	149,761	139,595
Metal content: Zinc	tons	78,779	73,700
New Broken Hill Cons	olidated Li	mited (32 pe	er cent owned by C.R.A.)
Ore milled	tons	779,644	721,870
Lead concentrate	tons	124,366	118,490
Metal content: Lead	tons	95,905	90,399
Silver	ounces	2,441,824	2,309,369
Zinc concentrate	tons	157,782	148,921
Metal content: Zinc	tons	85,213	79,932

Record levels of production, improved efficiencies and higher prices for lead, zinc and silver resulted in a substantial improvement in the earnings of both mines. The Zinc Corporation derived benefit from greater use of instrumentation in the concentration plant.

An underground crusher is being installed in the Zinc Corporation mine. This is due to come into operation in 1965 and will further increase the efficiency of operations.

Negotiations for a new industrial agreement at Broken Hill to replace the 1960 agreement have been concluded.

Under an agreement made in 1946 the Zinc Corporation sold to New Broken Hill Consolidated during the years 1946 to 1950 inclusive, at cost of production, a total of approximately 233,000 tons of run of mine lead zinc ore. The agreement provides for the return by New Broken Hill Consolidated, also at cost of production, of ore containing an equal amount of lead at a mutually agreed time. New Broken Hill Consolidated has now reached the stage in its development when it is in a position to meet the outstanding obligation but, instead of a return sale of ore which would involve most difficult operational and physical problems, it has been agreed that it will pay to the Zinc Corporation a total sum of f,A1,520,000 by annual instalments of £A304,000 in each of the years 1964 to 1968. The Zinc Corporation will thus receive the same profit before tax as accrued to New Broken Hill Consolidated from the original sale of ore.

#### LEAD SMELTING

Silver

he Broken Hill Associated melters Pty. Ltd. ort Pirie, South Australia		(50 per cent owned by C.R.	
Production		1963	1962
Refined lead t	one	228 244	197 280

ounces

7,593,775

6.492.814

The lead smelter at Port Pirie operated without restriction throughout 1963 and market lead production was a record. Sales matched output and financial results were satisfactory.

New wharves are being built at Port Pirie to bring the port up to modern standards. Two of the new berths for the handling and despatch of lead concentrate and zinc concentrate have been completed and a third should be ready for use in 1964.

#### ZINC AND LEAD SMELTING

Sulphide Corporation Pty. Limited

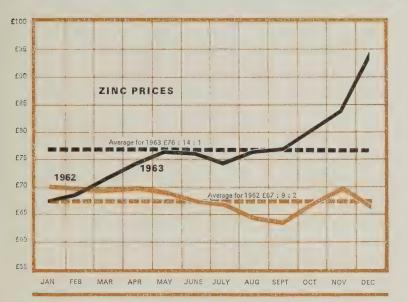
Cockle Creek New South Wales

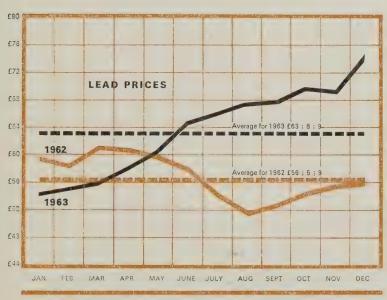
(75 per cent owned by C.R.A., 25 per cent owned by New Broken Hill Consolidated Limited)

Production		1963	1962
Zinc metal	tons	43,997	35,049
Lead bullion	tons	20,858	16,595
Refined Cadmium	tons	125	76
Copper dross	tons	1,038	956

Smelter output increased in 1963, chiefly because of improved metallurgical and plant performances. Owing to increasing local demand most of the production of zinc was sold within Australia. The lead bullion and cadmium were exported.

#### Monthly Average Prices per ton on London Metal Exchange





#### ALUMINIUM

Principal holding and management company

Comalco Industries Pty. Limited (50 per cent owned by Head Office: Melbourne, Victoria C.R.A., 50 per cent by Kaiser Aluminum and Chemical Corporation of the U.S.A.)

#### **Development and Mining of Bauxite deposits**

Commonwealth Aluminium Corporation Limited				
Weipa, Queensland		(wholly owned b	y Comalco)	
Production		1963	1962	
Bauxite	tons	285,330	20,427	

Weipa bauxite is being shipped to the Bell Bay aluminium smelter and to Japan under a three-year contract. Production will be greatly increased in the next few years to provide the bauxite requirements of the large alumina plant to be constructed at Gladstone and to supply export markets.

#### **Planned Alumina Plant**

Queensland Alumina Limited (8 per cent owned by C.R.A.)

Gladstone, Queensland

Arrangements are about to be concluded between C.R.A., Kaiser Aluminum and Chemical Corporation, Aluminium Limited and Pechiney for the construction at Gladstone of an alumina plant with an annual capacity of 600,000 tons of alumina and due to be completed early in 1967. All the bauxite requirements for Gladstone will be drawn from Weipa, except that after the first 10 years Aluminium Limited will be entitled to provide its proportion of the requirements from its own bauxite deposits in Queensland. Alumina is the intermediate product between bauxite and primary aluminium.

#### **Aluminium Smelting**

Comalco Aluminium Bell Bay, Tasmania Production	(Bell Bay)	Limited (wholly owned b	y Comalco) 1962
Aluminium ingot	tons	30,650	16,200

By June, 1963, the annual capacity of the Bell Bay aluminium smelter had been expanded to 52,000 tons, but production was limited for much of the year by electric power shortages,

due mainly to abnormally low water supplies for the Tasmanian hydro-electric system. With improved water supplies, power restrictions were lifted from 1st March 1964, thus enabling additional furnaces to be brought back into operation.

Aluminium Fabrication		
Comalco Products Pty. Limited Yennora, New South Wales	(wholly owned	by Comalco)
Production	1963	1962
Fabricated aluminium products to	ons <b>6,854</b>	6,095

During the year all the operations of this company were concentrated at Yennora. The installation of new hot-rolling mill facilities was substantially completed by the end of 1963 and a new foil rolling-mill has been commissioned.

URANIUM			
Mary Kathleen Uranium Mary Kathleen, Queensland		(51 per cent own	ed by C.R.A.)
Production Production	d.	1963 (Jan/Oct)	1962 (Full year)
Ore treated Uranium oxide	tons lbs.	390,400 1,604,869	455,484 2,000,257

On 4th November 1963 production ceased with the completion of the contract to supply 9,000,000 lbs. of uranium oxide to the United Kingdom Atomic Energy Authority, and the town of Mary Kathleen and the plant were placed on a care and maintenance basis. Efficiencies and costs remained at very favourable levels during the final months before the shut-down.

#### IRON ORE

Hamersley Iron Pty. Limited (60 per cent owned by C.R.A.

Hamersley Ranges, Western Australia and 40 per cent by Kaiser

Steel Corporation)

Under an agreement with the Western Australian Government, Hamersley Iron acquired sole prospecting rights for iron ore in two areas totalling 2,706 square miles. The southern of these two areas contains the massive Mount Tom Price deposit where some 500 million tons of high-grade haematite assaying approximately 64 per cent iron have been defined. King Bay has, with the approval of the Western Australian Government, been selected as the port

site and will be made capable of accommodating the largest ore carriers.

#### COAL AND COKE

**Rio Tinto Collieries Pty. Limited** (wholly owned by C.R.A.)

Burragorang Valley and Lithgow, New South Wales

		1963	1962
Coal production	tons	829,000	833,000

Due to improved efficiencies output increased early in the year but, because of depressed markets, production was restricted to four days per week from March to October.

Kembla Coal and Coke Pty. Limited (wholly owned by Coal Cliff, New South Wales

The Broken Hill Associated Smelters Pty. Limited)

Production		1963	1962
Coal	tons	778,000	798,000
Coke	tons	108,000	111,000

The operations of this company and its subsidiaries continued at a steady level during 1963.

#### CHEMICALS

Sulphide Corporation Pty. Limited (75 per cent owned by C.R.A., 25 per cent Cockle Creek, New South Wales by New Broken Hill Consolidated Limited) **Production** 1963 1962 Sulphuric acid 132,169 110,326 tons Superphosphate Fertilisers tons 286,670 236,521

Sales of superphosphate rose by 17 per cent over 1962, due mainly to the introduction of a Commonwealth Government bounty on phosphatic fertilisers.

## The Broken Hill Associated Smelters Pty. Limited

Port Pirie, South Australia	(50 per cent owned by C.R.A.)		
		1963	1962
Sulphuric acid production	tons	63,546	53,016

The superphosphate bounty has resulted in increased sales of sulphuric acid to the South Australian fertiliser industry and the plant is now operating near its full capacity.

Australian Fluorine Chemicals Pty. Limited (50 per cent owned by C.R.A., 50 per cent by Monsanto Chemicals (Australia) Ltd.)

Demand for this company's 'Isceon' propellants and refrigerants is increasing rapidly, but production is not yet at the level necessary for profitable operations.

#### MINERAL SANDS

#### Titanium and Zirconium Industries Pty. Limited

North Stradbroke Island, Queensland (wholly owned by C.R.A.)

Production		1963	1962
Rutile	tons	15,910	14,727
Zircon	tons	8,870	9,653
Monazite	tons	54	63

The rutile and zircon markets remained stable during the year. Work has commenced on the modernisation of one of the dredge concentrators to double its capacity, on the establishment of more economic transport and on the installation of bulk storage silos in Brisbane.

#### QUARRYING AND ROAD CONTRACTING

Fitzpatrick Industries Pty. Limited Sydney, New South Wales			(75 per cent d by C.R.A.)
Production		1963	1962
Metal	tons	610.570	606.550

tons

131,168

149,399

This company again had a satisfactory year, despite difficulties in the early months. The new crushing and screening plant was in full operation by the end of the year, giving additional capacity and improved quality of product. The associated companies producing gravel and asphalt mix operated profitably.

Since the end of the year agreement has been reached for the sale of C.R.A.'s shareholding to Pioneer Concrete Services Limited.

#### BRICKS

Sand

Rio Tinto Brick Pty. Limited

(wholly owned by C.R.A.)

Campbellfield, Victoria

The new brick plant commenced production in the latter

half of 1963 but has not reached full capacity, and the company is not yet on a profitable basis.

#### CANADA

Principal company

#### RIO ALGOM MINES LIMITED (R.A.)

Head Office: Toronto, Ontario

(53 per cent owned)

#### MINING DIVISION

#### URANIUM

Milliken and Nordic Mines  Elliot Lake, Ontario		(wholly ov	vned by R.A.)
		1963	1962
Ore treated	short tons	2,005,729	2,071,790
Uranium oxide delivered under contract	pounds	5,460,751	5,342,474

As a result of a Canadian Government decision to purchase uranium at cost for stockpiling, the Milliken mine and mill, which were due to close in the middle of 1963, will now remain in operation until the end of June 1964.

Mining and milling efficiencies at both Milliken and Nordic showed improvements over the previous year.

At the end of 1963, the undelivered balances under the Company's Government contracts, including the new stockpiling contract amounted to 20,198,000 lbs. of uranium oxide.

#### COPPER

Pater Mine Elliot Lake, Ontario		(wholly	owned by R.A.)
		1963	1962
Ore milled	short tons	258,499	256,325
Copper content of concentrate produced	short tons	4,670	4,122

Ore reserves are estimated to be sufficient for mining until early 1967.

#### **Vauze Mines Limited** (50 per cent owned) Noranda, Quebec 1963 1962 Ore milled short tons 115,878 109,242 Content of copper concentrate produced 3.501 4.853 Copper short tons Gold 2,150 3,300 ounces 87,500 160,700 Silver ounces Content of zinc concentrate produced 1.741 1.728 short tons

Although the high-grade ore zone of this mine has been exhausted, there is sufficient ore of low grade to occupy the plant profitably until late in 1964, and exploration is continuing.

#### Mines de Poirier Inc.

(wholly owned by R.A.)

Poirier, Quebec

Exploration and investigations of this small copper/zinc prospect are continuing and a 1,275-foot shaft has been sunk. Underground drilling has given encouraging results.

GOLD			
Preston Mines Limited	I	(81 per	cent owned)
Tillillins, Omario		1963	1962
Ore milled Gold produced	short tons ounces	199,400 39,903	201,440 40,502

Operating costs were somewhat higher than in 1962, reflecting the effect of sales tax and increased wages. Ore reserves decreased by about 15 per cent during the year.

#### STEEL DIVISION

**Atlas Steels Company Limited** (wholly owned by R.A.) Welland, Ontario, and Tracy, Quebec

Production at the Welland plant was at or near peak capacity in most units during 1963. Technical improvements made possible improved quality and reduced costs.

The new plant at Tracy began despatches of continuous mill sheet at the end of 1963, and most of the units at this plant are expected to be in full production by the end of 1964, although the plant will not be fully integrated until the hot planetary mill is installed in 1965.

Although sales in almost all markets showed increases over 1962, severe competition reduced profit margins.



### UNITED STATES OF AMERICA

#### COBALT AND COPPER

The Pyrites Company Inc.

(wholly owned)

Wilmington, Delaware

Both copper and cobalt production from pyrites cinders and leach liquors increased by approximately 5 per cent compared to the previous year. This was just enough to counteract the general increase in prices and wages, thus keeping the unit cost at practically the same level as for the previous year. The sintering plant is still on a care and maintenance basis.

#### UNITED KINGDOM

Principal Operating Company

IMPERIAL SMELTING CORPORATION LIMITED

Head Office: Bristol (wholly owned)

#### ZINC AND LEAD SMELTING

#### **Imperial Smelting Corporation Limited**

Avonmouth and Swansea

Production		1963	1962
Zinc metal	tons	99,139	97,246
Lead bullion	tons	28,260	29,107
Refined Cadmium	tons	106	89

Production of zinc from Imperial Smelting Corporation plants at Avonmouth and Swansea has increased again during the year under review. Production on the standard sized Imperial Smelting Furnace at Swansea has been maintained at well above rated capacity throughout the year and, in the first weeks of 1964, rose to even higher levels. This improvement has been maintained and, as a result, the potential performance for this type of furnace is considered to be very much higher than was originally planned. The smaller furnace at Avonmouth again increased the substantial contribution that it made to the overall metal production of the previous year and the vertical retort plant has maintained a high level of performance. As regards the vertical retort plant operated at Avonmouth a study has been made of the operating techniques used elsewhere in the world and it has been established that the methods used at Avonmouth are as advanced as any. Overall, the production of zinc and lead in 1963 set a new record.

Sales of zinc dust to the chemical industry recovered from the decline reported last year and were higher than the level achieved in 1961. Sales of the superfine grades were on a comparable level to that of 1962.

#### SULPHURIC ACID

#### **Imperial Smelting Corporation Limited**

Avonmouth, Swansea, Newport and Seaton Carew

		1963	1962
Production	tons	217,470	214,197

Total sales from these plants were higher than in 1962. This increase resulted from some improvements in the demand from markets in South Wales and the West of England serving the steel industry, but that industry continued to operate well below capacity. As a measure of rationalisation, acid production was concentrated at the Avonmouth and Swansea works. The older chamber plant at Newport was put on care and maintenance, and that at Seaton Carew was sold.

#### ZINC ALLOYS

## Imperial Smelting Corporation Limited

Bloxwich

		1963	1962
Production	tons	45,666	42,690

A satisfactory increase in the sales of zinc alloy was due to increased demand for diecastings from the motor car and durable goods industries which prospered during the year under review. Demand for C-Sentry zinc alloy anodes for protection of steel has increased by 30 per cent during the past year. The major application for C-Sentry anodes is for the cathodic protection of ships and marine structures.

#### ZINC PIGMENTS

#### **Imperial Smelting Corporation Limited**

Widnes and Burry Port

		1963	1962
Production	tons	41,327	40,639

The past year has seen a further decline in the market for lithopone and zinc sulphide pigments. It was therefore decided to cease production of lithopone at our Widnes works at the end of 1963. Comprehensive plans are being implemented for the reorganisation of the remaining and more profitable activities on this site. Sales of zinc oxide increased by 3 per cent over the previous year as a result of strong demand from the motor tyre manufacturers.



#### **FLUORINE CHEMICALS**

## **Imperial Smelting Corporation Limited**

Avonmouth

Sales of all grades of 'Isceon', the fluorine-based chemical, were some 19 per cent higher than those of 1962. The increased demand resulted from the expanding needs of the

aerosol packaging industry. Sales of hydrofluoric acid recovered during the year to achieve an increase over 1962 of 14 per cent mainly because of increased internal requirements of acid for 'Isceon' production.

#### OTHER CHEMICAL PRODUCTS

## Imperial Smelting Corporation Limited Widnes

Sales of ground white barytes, barium carbonate and barium hydroxide, all increased during the year under review.

# FINE CHEMICALS AND STABILISERS FOR THE PLASTICS INDUSTRY

#### **Pure Chemicals Limited**

(wholly owned)

Kirkby, near Liverpool

Volume of sales again increased and the Company made further encouraging progress in establishing itself in the field of additives for plastics.

A large proportion of the Company's sales are for export where keen competition has reduced profit margins. Many technical improvements have been initiated which are expected to add considerably to future profitability.

As a result of research work in the manufacture of organo-tin compounds, the Company has made a long-term agreement with Chas. Pfizer & Co., Inc. of New York for co-operation in this field.

The Company's recently installed plant for the manufacture of organo-phosphorus compounds has operated satisfactorily and the market for these products is expected to expand rapidly.

#### BERYLLIUM METAL AND ALLOYS

## **Consolidated Beryllium Limited**

(50 per cent owned)

Avonmouth

Following the decision of the United Kingdom Atomic Energy Authority to concentrate on stainless steel instead of beryllium for Advanced Gas-cooled Reactor fuel canning purposes and the conclusion of the contract with the Ministry of Aviation, production of high purity beryllium metal from the plant at Avonmouth ceased during March 1964.

Production and sale of beryllium copper alloy has continued and markets for this material, which has many applications in the electrical and automation fields, are expected to grow with industrial modernisation.

As a result of the efforts made in recent years to promote beryllia ware production at the Milford Haven Works, the prospects appear to have improved for the use of beryllia in high output transistors and in ceramic bases for printed circuits. Production of beryllia ware is therefore continuing at Milford Haven.

# THORIUM AND RARE EARTH CHEMICALS

**Thorium Limited** Widnes

(50 per cent owned)

This company increased its turnover by 18 per cent over the previous year. Although thorium products continued as the largest proportion of sales, there has been a considerable growth in the demand for separated rare earths products. Changes in raw material usage for the production of thorium nitrate in 1964 promise to provide an attractive route for combined Thorium Limited-Rio Tinto Dow Limited operations.

# SAND AND GRAVEL AND READY-MIXED CONCRETE

S.G.M. (Holdings) Limited
In-Situ Concrete (Holdings) Limited
Cardiff, Newport and Swansea

(60 per cent owned)
(40 per cent owned)

An interest in these two undertakings was acquired in 1962. Sales of ready-mixed concrete in the South Wales area have progressed in 1963 after the initial set-back experienced early in the year from the severe weather conditions which restricted activity in the building industry. It has been a difficult year for the marketing of sand and gravel from the three shore installations which have been established on the South Wales coast. The difficulties encountered in discharging adequate quantities of sand from the large dredger have also restricted sales from each depot. These problems are being overcome, and it is confidently expected that sales will expand.

#### VERMICULITE

#### **Mandoval Limited**

(41 per cent owned)

Head Office: London

The continuing demand for vermiculite for established and new uses resulted in a further increase in world sales, excluding North America, from 62,535 short tons in 1962 to 80,400 in 1963. The new research station at Godalming completed its first full year, and the technical advances made there have been of great value to consumers.

#### ALUMINIUM

#### R.T.Z. Metals Limited

(wholly owned)

Head Office: London

#### **Primary Aluminium Ingot**

### Comalco (Europe) Limited

(wholly owned)

Sales of primary aluminium ingot from the Bell Bay smelter in Australia began in the United Kingdom in the second half of 1963.

#### **Aluminium Extrusion Plant**

#### R.T.Z. Metals Limited

Widnes, Lancs.

Installation of an aluminium extrusion press with an estimated annual output of 5,000 tons is in progress at Widnes, Lancs., and the plant is expected to begin production in September 1964.

#### Non-Ferrous Metal Stockists

#### **Alreco Limited**

(wholly owned)

This metal stockist business was acquired in May 1963, and operates warehouses at Wembley, Millwall and at Great Barr, Birmingham. Turnover is now substantially higher than a year ago and the Company continues to make encouraging progress.

#### **SOUTHERN RHODESIA**

**Principal Company** 

#### RIO TINTO RHODESIAN HOLDING COMPANY LIMITED

Head Office: Salisbury, Southern Rhodesia

(wholly owned)



### GOLD

Rio Tinto (Rhodesia) Limited Cam and Motor Mine		(99 per cent owned)	
		1963	1962
Ore treated	short tons	192,664	202,875
Gold produced	ounces	112,772	107,682

The average grade of ore treated in 1963 was higher than in 1962 and gold production was therefore higher despite a reduced tonnage of ore. Operating profit as a result was significantly higher than in 1962.

Pickstone Mine		1963	1962
Ore treated	short tons	91,270	87,166
Gold produced	ounces	16,060	19,501

A fall in the grade of ore resulted in lower gold production despite some increase in tonnage, and this gave a small operating loss for the year.

Patchway Mine		1963	1962
Ore treated	short tons	60,251	48,501
Gold produced	ounces	20,887	19,452

As a result of the installation of extra milling capacity there was a considerable increase in tonnage of ore treated in 1963 as compared with 1962 but a reduction in grade resulted in only a small increase in gold production, and operating profit was therefore lower.

#### **EMERALDS**

#### **Rio Tinto Sandawana Limited**

(97 per cent owned)

Sandawana Mine

Because of increasing hardness of the overlying rock, underground mining was adopted during 1963 in place of openpit methods. Improvements were also made to the mill. Investigations are continuing at four other occurrences in the Company's exploration area.

#### **SOUTH AFRICA**

#### COPPER

**Palabora Mining Company Limited** 

(39 per cent owned)

North-eastern Transvaal

In January 1963, the decision was taken to go ahead with the financing of the Palabora mine. Arrangements were successfully concluded during the first half of the year and on receipt of a mining lease from the South African Government in June, Palabora Mining Company was able to proceed with a public offering of shares and debentures in South Africa. At the same time, the major construction programme was started and it is progressing on schedule. Production of copper is planned for the first half of 1966. A substantial part of the annual tonnage of blister copper will be sold to Norddeutsche Affinerie on a twenty-year contract.

The total finance required to bring the mine into production at a rate of some 80,000 short tons of copper a year is estimated at £37 million including allowances for working capital and preproduction loan interest charges. Of this total, R.T.Z. Group companies will have contributed £5½ million, and other equity shareholders, including the South African public, will have provided a further £9 million. The balance of £22½ million has been raised in the form of loans -£6.3 million as debentures issued in South Africa, £9.6 million from Kreditanstalt für Wiederauf bau of Frankfurt, and the remaining £6.6 million from South African banks and institutions.

In addition to copper, Palabora will produce sulphuric acid and magnetite.

In 1963, Transvaal Ore Company Limited, now a wholly owned subsidiary of Palabora Mining Company, produced a total of 96,763 short tons of vermiculite.

## SPAIN

#### **PYRITES MINING**

#### Compañia Española de Minas de Rio Tinto S.A.

near Huelva, South West Spain		$(33\frac{1}{3} \text{ per cent owned})$	
Production		1963	1962
Pyrites	metric tons	818,314	848,951
Blister copper	metric tons	11,040	11,771
Sulphur	metric tons	26,307	32,785
Sulphuric Acid	metric tons	31,526	41,716

Production of pyrites during 1963 was lower than in the previous year. However, total sales rose to 869,001 metric tons as compared with 768,658 metric tons in 1962; this was basically due to the increased demand within Spain. Production of blister copper, sulphur and sulphuric acid was adversely affected during the year due to labour unrest in the smelter. Otherwise operations continued satisfactorily, though there was increasing shortage of labour for underground work.



